

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A transceiver system, comprising:

a transmitter portion arranged on a bottom layer of a multi-layer circuit board, the transmitter portion capable of providing signals to a transmitter optical subassembly configured to transmit optical signals from the transceiver system;

a receiver portion arranged on the bottom layer of the multi-layer circuit board, the receiver portion capable of receiving signals from a receiver optical subassembly configured to receive optical signals into the transceiver system;

a high-voltage power supply arranged on a top layer of the multi-layer circuit board, the high-voltage power supply providing a bias voltage for the receiver optical subassembly; and

a metallic ground plane arranged on a first intermediate layer between the top layer and the bottom layer, the metallic ground plane providing electrical ~~isolation~~ shielding between the high-voltage power supply and the transmitter portion and the receiver portion.

2. (Original) The system according to claim 1, wherein the transmitter portion and the receiver portion are arranged in a split-ground arrangement.

3. (Original) The system according to claim 1, wherein a second intermediate layer having vias is arranged between the first intermediate layer and the top layer.

4. (Previously presented) The system according to claim 3, wherein a third intermediate layer having vias is arranged between the first intermediate layer and the bottom layer.

5. (Original) The system according to claim 4, wherein an interconnect layer is arranged between the first intermediate layer and the third intermediate layer.

6. (Original) The system according to claim 1, further including a microcontroller system arranged on the top layer and the bottom layer.

7. (Currently amended) A transceiver system, comprising:

means for receiving signals from a receiver optical subassembly configured to receive optical signals into the transceiver system, the means for receiving being arranged on a bottom layer of a multi-layer circuit board;

means for transmitting signals through a transmitter optical subassembly configured to transmit optical signals from the transceiver system, the means for transmitting being arranged on the bottom layer of the multi-layer circuit board;

means for generating a high-voltage bias for the receiver optical subassembly, the means for generating being arranged on a top layer of the multi-layer circuit board;

means for electrically ~~isolating~~ shielding the means for generating the high-voltage bias from the means for receiving and the means for transmitting, the means for electrically shielding being arranged on a first intermediate layer between the top layer and the bottom layer.

8. (Currently amended) A method of isolating a high voltage power supply providing a bias voltage for an optical assembly, comprising:

arranging the high voltage power supply on a top layer of a multi-stack circuit board;

arranging a receiver and a transmitter~~other circuitry~~ on a bottom layer of the multi-stack circuit board, the receiver and transmitter being capable of receiving and transmitting signals from and to a receiver optical subassembly and a transmitter optical subassembly respectively; and

arranging a shielding plane on an intermediate layer of the multi-layer circuit board;

wherein the receiver optical subassembly and the transmitter optical subassembly are configured to respectively receive and transmit optical signals into and from the transceiver system.

9. (Canceled).

10. (Original) The method of claim 8, further including providing a split ground between the high-voltage power supply and the other circuitry.

11. (Original) The method of claim 8, further including arranging a first intermediate layer between the top layer and the bottom layer, the first intermediate layer including vias to provide electrical contact with traces on the top layer.

12. (Original) The method of claim 11, further including arranging a second intermediate layer between the first intermediate layer and the intermediate layer, the second intermediate layer providing traces.

13. (Original) The method of claim 12, further including arranging a third intermediate layer between the intermediate layer and the bottom layer, the third intermediate layer including vias.

14. (Currently amended) A transceiver, comprising:
means for providing a bias voltage formed on a multi-layer circuit board;
means for receiving a signal from an optical subassembly configured to receive optical signals into the transceiver formed on the multi-layer circuit board;
means for transmitting a signal through an optical subassembly configured to transmit optical signals from the transceiver formed on the multi-layer circuit board; and
means for isolating the means for providing a bias voltage from the means for receiving a signal and the means for transmitting a signal on the multi-layer circuit board.